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Mindfulness and Resilience As Predictors of Burnout

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ABSTRACT

MINDFULNESS AND RESILIENCE AS PREDICTORS OF BURNOUT

by Julie H. Tu

The faster pace of work due to technological advances and globalization as well as global competition in the workforce may lead to increased chances of stress and burnout among employees. Understanding more predictors of burnout may help companies create better work environments to increase productivity and minimize consequences of burnout (e.g., higher absenteeism, turnover, substance abuse, anxiety, depression). However, not enough research has been done to study the degree to which personality traits predict burnout. Therefore, the purpose of the present study was to examine the degree to which trait mindfulness and trait resilience predict burnout. The study was a cross-sectional, correlational survey in which data were collected online through self-reports from people working at least part-time. Responses from 139 participants were analyzed using hierarchical multiple regression. Results showed that both mindfulness and burnout predicted burnout above and beyond the effects of demographic variables. Furthermore, results also showed that mindfulness was more predictive of most domains of burnout than resilience, and resilience was more predictive of client-related burnout. Results suggest mindfulness and resilience are important predictors of burnout. Therefore, organizational leaders could prioritize selecting employees with, and provide resources to build upon existing levels of, mindfulness and resilience to reduce burnout and its subsequent consequences.

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Introduction

The pace of work has become much faster with economic globalization and advancing technology, which promotes rapid changes in work processes, competencies, and employment situations (e.g., layoffs or restructuring due to mergers and acquisitions) (Kulkarni, 2006). Many workers must meet the rising demands for higher productivity in less time with the connecting power of technology, learn new skills to maintain competency in their fields, or transition to new industries as their fields become obsolete (Kulkarni, 2006). The faster pace of work, globalization, and advancing technology result in heightened business competition and increased stress among employees, which may lead to increased chances of burnout (Hung, Fisher, Gapp, & Carter, 2012; Judd, Dorozenko, & Breen, 2016; Kulkarni, 2006).

Burnout is most commonly defined as an internal emotional reaction resulting from the external environment and the psychological state accumulated from prolonged emotional and/or psychological stress while working (Adriaenssens, De Gucht, & Maes, 2015). It is most widely characterized by emotional exhaustion, cynicism (or depersonalization), and a reduced sense of personal accomplishment and efficacy (Maslach, Schaufeli, & Leiter, 2001). Although Maslach's definition and scale are widely used, the present study uses the definition provided by Kristensen, Borritz, Villadesen, and Christensen (2005), mainly because of problems in the conceptualization of the burnout scale by Maslach and her colleagues (Maslach, Jackson, & Leiter, 1997; Maslach et al., 2001). Unlike Maslach and her colleagues (Maslach et al., 1997; Maslach et al., 2001), Kristensen et al. (2005) conceptualized burnout as a one-dimensional

construct that comprises of fatigue and exhaustion across three different life domains: life outside of work, work factors, and people factors. These three life domains are labeled as personal burnout, work-related burnout, and client-related burnout, respectively.

Employees experiencing burnout are likely to suffer physically with symptoms such as lethargy, insomnia, and somatic problems; emotionally with increased irritability, anxiety, and depression; behaviorally with cynicism, pessimism, and substance abuse; and interpersonally with withdrawal from and less empathy towards people (Kahill, 1988). These symptoms of burnout likely lead employees to be absent from or tardy to work, to have poor work performance, to have increased medical problems and costs, and to leave the organization (Bakker, Demerouti, & Sanz-Vergel, 2014; Lee, Lim, Yang, & Lee, 2011). Given the negative consequences of burnout, many interventions to reduce burnout have been created and implemented. Among them, mindfulness has gained popularity in recent years and has been identified as an effective method to reduce burnout because it has been associated with attentional, cognitive, emotional, behavioral, and physiological benefits (Charoensukmongkol, 2013; Di Benedetto & Swadling, 2014; Duarte & Pinto-Gouveia, 2016; Good et al., 2016).

Mindfulness does not have a uniform operational definition. However, mindfulness is commonly and most simply defined as present-centered, non-judgmental attention, and awareness (Brown & Ryan, 2003a). Mindfulness can be considered as a state and a trait (Sternberg, 2000). Mindfulness as a state means that people can choose the time and the degree to be present, non-judgmental, and aware of their internal and external environments when mindfulness is used as a method of intervention. In other words,

people can decide when to be in a mindful state (Ortner, Kilner, & Zelazo, 2007). Mindfulness as a trait, or dispositional mindfulness, refers to people's tendencies to be mindful day-to-day (Ortner et al., 2007). Researchers have noted that people who exhibit high state mindfulness have high dispositional mindfulness tendencies, which suggests that mindfulness is fundamentally a state-level construct that can be studied at the trait level (Dane, 2011; Sternberg, 2000). For the purpose of this study, mindfulness is considered as a trait to better understand the role of the innate nature of mindfulness in predicting burnout.

In addition to mindfulness, resilience has also been a popular research topic to reduce burnout (Harker, Pidgeon, Klaassen, & King, 2016; Rushton, Batcheller, Schroeder, & Donohue, 2015). Conner and Davidson (2003) asserted that resilience could be used to treat anxiety, depression, and stress. It has been found that resilient employees are better able to cope with changes in the workplace (Jackson, Firtko, & Edenborough, 2007; Robertson, Cooper, Sarkar, & Curran, 2015; Shin, Taylor, & Seo, 2012). In other words, resilient individuals are more able to quickly recover from disruptions in functioning than their less resilient counterparts, which can be useful in a fast-paced, demanding, and high burnout working environment.

Like mindfulness, resilience does not have a uniform operational definition (Hu, Zhang, & Wang, 2015). Resilience is most commonly defined as "the positive psychological capacity to rebound, to 'bounce back' from adversity, uncertainty, conflict, failure or even positive change, progress and increased responsibility" (Luthans, 2002, p. 702). Based on current definitions of resilience, resilience can be considered as a

personal trait, outcome, and process (Hu et al., 2015). Resilience as a personal trait is thought to be comprised of cognitive and behavioral tendencies that help individuals to cope and overcome challenges as well as to protect individuals from the impacts of trauma (Burns & Anstey, 2010; Hu et al., 2015). Resilience as an outcome is thought to be a behavioral change as a result of overcoming challenges (i.e., learned behavior) (Masten, 2001). Finally, resilience as a process is thought to be dynamic because individuals constantly adapt to their environment and recover as necessary. Similar to the way mindfulness is regarded within the context of this study, resilience is regarded as a personal trait to better understand the role of the innate nature of resilience in predicting burnout.

Given the severe consequences of burnout (i.e., exhaustion, withdrawal, depression, anxiety, and overall, a lower quality of life), more research is needed to understand the predictors of burnout. Although both mindfulness and resilience seem to reduce burnout, not much research has been conducted to examine the degree to which either trait can predict burnout. Understanding the predictors of burnout will allow for a more effective treatment of burnout. High levels of burnout have substantial economic and psychosocial ramifications on the quality of life of individuals and families alike as well as on the performance and effectiveness of the employees of an organization (Kulkarni, 2006). Therefore, in order to contribute to the research body, this study attempts to answer the question: Which seems to be better at predicting burnout, mindfulness or resilience? By deepening the understanding of how these constructs work and how they individually affect burnout, organizations may be more equipped to provide better resources for their

employees to cope with and reduce burnout as well as to help their employees have a better quality of life so that they may be more productive inside and outside of work.

The following sections describe the definition, prevalence, consequences, and predictors of burnout. The definition and benefits of mindfulness are provided, followed by a review of research on the relationship between mindfulness and burnout. The definition and benefits of resilience, and a review of research on the relationship between resilience and burnout are also presented. Finally, the hypotheses and research questions are proposed.

Burnout

As previously mentioned, the majority of burnout studies use emotional exhaustion, cynicism (or depersonalization), and a reduced sense of personal accomplishment and efficacy to define burnout and use the Maslach Burnout Inventory (MBI) (Maslach et al., 1997) to measure burnout. However, Maslach et al.'s conceptualization of burnout and the MBI have been criticized (Fiorilli et al., 2015; Kristensen et al., 2005; Milfont, Denny, Ameratunga, Robinson, & Merry, 2008). For example, some researchers suggest that depersonalization and reduced personal accomplishment are not related to burnout because recent studies have linked depersonalization as a coping strategy of burnout and reduced personal accomplishment as a consequence of long-term stress as opposed to being syndromes of burnout (Kristensen et al., 2005; Milfont et al., 2008; Taris, Le Blanc, Schaufeli, & Schreurs, 2005).

Therefore, several researchers argued that burnout should be one-dimensional because many researchers agreed that exhaustion is the main causal factor in burnout

development (Kristensen et al., 2005; Lee & Ashforth, 1996; Shirom, 2005), reduced personal accomplishment (cynicism) could develop independently from the other two dimensions of burnout (Schutte, Toppinen, Kalimo, & Schaufeli, 2000), and that depersonalization was a coping strategy (Taris et al., 2005). As a result, in this study, burnout is defined as fatigue and exhaustion in three domains (personal burnout, work-related burnout, and client-related) as defined by Kristensen et al. (2005) and measured by the Copenhagen Burnout Inventory (CBI). One of the strengths of the CBI is that it is deemed to be more inclusive of different groups of people than the MBI and has very high internal reliability and validity (Fiorilli et al., 2015; Kristensen et al., 2005; Milfont et al., 2008).

Kristensen et al. (2005) defined personal burnout as "the degree of physical and psychological fatigue and exhaustion experienced by the person" (p. 197) outside of work designed for all people, regardless of the level of participation in the workforce (e.g., inexperienced and young workers, people in-between jobs, retired), for the purpose of comparing people's levels of tiredness or exhaustion (also known as generic burnout). Work-related burnout is "the degree of physical and psychological fatigue and exhaustion that is perceived by the person as related to his/her work" (p. 197) for the purpose of comparing the personal burnout with work-related burnout to distinguish people who feel fatigued from non-work causes (e.g., family, financial, or health problems). Finally, client-related burnout is "the degree of physical and psychological fatigue and exhaustion that is perceived by the person as related to his/her work with clients" (p. 197), where "clients" can include patients, customers, and students—using the term appropriate for

the group of people. The purpose of client-related burnout is to assess the person's attribution of their fatigue and their work related to people, including their supervisors and coworkers.

Prevalence of burnout. The prevalence of burnout varies across occupational groups and countries. For example, burnout levels have been found to reach as high as 67% of mental health workers in the U.S. and U.K. (Morse, Salyers, Rollins, Monroe-DeVita, & Pfahler, 2012), up to 40% of nurses in various Western countries (Aiken et al., 2001), between 40% to 60% of U.S. healthcare professionals including pediatric residents (Olson, Kemper, & Mahan, 2015), and between 13% to 18% of the general working population in Western countries (Lindblom, Linton, Fedeli, & Bryngelsson, 2006; Norlund et al., 2010). Furthermore, Adriaenssens et al. (2015) conducted a systematic review of studies on the prevalence of burnout among emergency nurses in various countries (e.g., Egypt, Iran, Ireland, Greece, Scotland, Spain, The Netherlands, United Kingdom, United States) and found that, on average, one in every four emergency nurses in their review felt emotionally exhausted and experienced a lack of personal accomplishment. Additionally, approximately one in every three emergency nurses in their review felt a sense of depersonalization. Considering that these reviews (most of which utilized the MBI) included samples from around the world, the prevalence of burnout in health workers is staggering.

Consequences of burnout. As previously mentioned, burnout has been shown to have major consequences, including poor job performance and health consequences (Bakker et al., 2014). It has also been associated with higher absenteeism, turnover

intention, and actual turnover as well as lower productivity and job satisfaction (Lee et al., 2011; Maslach et al., 2001). Burnout has also been associated with higher likelihood of substance abuse, anxiety, and depression (Maslach et al., 2001). Moreover, Peterson et al. (2008) noted increased sleep and memory impairment, alcohol consumption, and neck and back pain in their study of Swedish service workers who experienced burnout. Therefore, consequences of burnout have negative effects on quality of life and need to be better documented in order to be reduced and, if at all possible, prevented.

Predictors of burnout. Given the prevalence and negative consequences of burnout, researchers have paid considerable attention to identify its predictors. In their analysis and review of job burnout research, Maslach et al. (2001) found that work overload, role ambiguity and conflict, internal sense of reward, satisfaction, and job resources were strongly related to burnout. Specifically, burnout occurs when work demands exceed the time available to complete those demands and the energy levels beyond the pace of energy recovery (employee overload), when there is a lack of information to perform the job well (role ambiguity), and when there are conflicting work demands that need to be completed (role conflict). Therefore, people who have high work overload, role ambiguity, and role conflict are more likely to experience burnout than those with less conflicting work demands and have enough information to perform their jobs well.

Conversely, burnout is less likely to occur when there is an intrinsic pride in completing a job well (internal sense of reward and satisfaction) and when there are resources available for employees to cope with job demands and challenges to enable them to work effectively and to achieve work-related goals (Bakker & Demerouti, 2007).

Additionally, burnout is less likely to occur when there are less job demands and more job resources (e.g., positive feedback, external rewards, employee autonomy, positive work culture, and sense of community) (Bakker & Demerouti, 2007). In their meta-analysis of burnout, Lee et al. (2011) examined five predictors of burnout among psychotherapists. The five predictors were job stress (e.g., feeling overwhelmed by job-related tasks), self-control (e.g., autonomy), over-involvement (e.g., over-extending oneself working for the client), job support (e.g., receiving constructive feedback from co-workers and/or supervisors), and professional identity (e.g., classifying oneself with the beliefs, experiences, and values relating to the occupation). They found four of the predictors (job stress, over-involvement, self-control, and professional identity) to be significantly related with the burnout dimensions (emotional exhaustion, depersonalization, and reduced personal accomplishment). More specifically, job stress and over-involvement were most positively related to emotional exhaustion. However, self-control and professional identity were found to have the strongest negative relationship with depersonalization and reduced personal accomplishment. This means higher levels of stress and acts of over-extending oneself are related to the likelihood of experiencing emotional exhaustion. Higher levels of autonomy and professional identity are related to the likelihood of experiencing a less negative, dehumanizing outlook towards others and lessened feelings of reduced personal accomplishment (i.e., increased perceptions of one's work as unfulfilling and of one's self-efficacy).

Many studies have examined various predictors of burnout using the MBI. However, more studies are utilizing the CBI. Of the studies that used the CBI to assess the

predictors of burnout, negative affectivity, problem-focused disengagement coping (e.g., avoiding problems, self-criticism, and wishful thinking in avoiding the stressor, which promotes disengagement from the stressor), extraversion and agreeableness, job stress, and work hours were found to be significant predictors of burnout (Lue, Chen, Wang, Cheng, & Chen, 2010; Tobin, Holroyd, Reynolds, & Wigal, 1989). This means that people who were high on neuroticism and job stress, worked long hours, and used problem-focused disengagement coping strategies were more likely to experience burnout, whereas people who were high on extraversion and agreeableness were less likely to experience burnout.

Additionally, in a study involving Veterans Affairs mental health staff, self-compassion (i.e., non-judgment of failure and shortcomings, acceptance of distress, extending gentleness and forgiveness toward oneself) and depression were found to predict burnout (Atkinson, Rodman, Thuras, Shiroma, & Lim, 2017). The researchers found people who were high on self-compassion were less likely to experience burnout, but people high on depression were more likely to experience burnout. These findings were consistent with past research involving burnout and self-compassion using burnout measures other than the CBI.

Various predictors of burnout have been examined, but not many studies have examined mindfulness as a predictor of burnout. Therefore, one of the objectives of this study is to add to the literature by better understanding the role of mindfulness as a predictor to burnout.

Mindfulness and Its Benefits

With the increase in the prevalence of burnout, mindfulness has been receiving attention from scholars and corporate leaders like Google, Aetna, Mayo Clinic, and the U.S. Army due to its promising benefits as a way to reduce burnout (Good et al., 2016; Goodman & Schorling, 2012). Specifically, mindfulness has been shown to lower mental and emotional distress (i.e., emotion regulation) (Montero-Marin et al., 2015), increase psychological flexibility (i.e., experiencing reality without avoidance and judgment) (Masuda & Tully, 2012), and increase distress tolerance (Feldman, Dunn, Stemke, Bell, & Greeson, 2014).

This study uses the definition of mindfulness defined by Brown and Ryan (2003a) as the attention to and awareness of present experiences, specifically focusing on the trait aspect of mindfulness, which refers to people's general levels of mindfulness across different situations and time (Brown & Ryan, 2003a; Glomb, Duffy, Bono, & Yang, 2011). Mindfulness is considered as a combination of two core components, awareness and attention (Brown, Ryan, & Creswell, 2007).

On one hand, awareness can be compared to a radar where the awareness is detecting stimuli in the environment both externally and internally (Brown & Ryan, 2003a). Externally, awareness is received through the five physical senses. Internally, awareness is received from commentary inside the mind (i.e., thoughts and judgments) (Brown et al., 2007). One can be cognizant of various stimuli without any one stimulus being in focus.

On the other hand, attention is activated when a stimulus reaches a threshold, causing the individual to focus on the stimuli and bringing the stimulus to center stage. Attention is focusing awareness that leads to heightened sensitivity to a range of stimuli at a given time (Westen, 1999). According to Brown and Ryan (2003a), attention and awareness work together because attention pulls stimuli from the field of awareness into focus for various lengths of time.

Thus, people who are mindful tend to be aware of their external environment, calm, perceptive, and thoughtful in their responses to various stimuli and less emotionally reactive. Furthermore, people who are mindful tend to be aware of their thoughts, beliefs, and emotions, and to those of others (i.e., higher emotional intelligence, which is the ability to understand, manage, and integrate emotions). They also tend to judge themselves and others less for making mistakes, and they have more attentional stability (i.e., reduced attention from wandering and increased focus), attentional control (i.e., able to steer attention despite distractions and competing demands), and attentional efficiency (i.e., use less attention and energy processing distractions) than their less mindful counterparts (Good et al., 2016; Kozasa et al, 2012; Zeidner, Roberts, & Matthews, 2004).

The benefits connected to trait mindfulness include heightened awareness; enhancements to attentional, affective, and physiological regulation; better well-being (e.g., higher levels of positive affect and life satisfaction and lower negative affect) and mental health (e.g., lower levels of emotional disturbances including anxiety, depressive symptoms, and stress and higher levels of eudaimonia well-being (i.e., feeling energized)

(Brown et al., 2007; Glomb, 2011; Lefrançois, Leclerc, Dubé, Hébert, & Gaulin, 1997)). Greater well-being and mental health positively affect personal relationships including romantic relationships. One study examined mindfulness effects in romantic relationship satisfaction levels and emotional responses to relationship stress (Barnes, Brown, Krusemark, Campbell, & Rogge, 2007). The results indicated that those higher in trait mindfulness were more likely to have higher relationship satisfaction (which may be due to the ability to constructively respond to relationship conflict and stress) and lower relationship stress (which may be due to lower levels of anxiety) than couples lower in trait mindfulness. Thus, findings suggest that those with higher levels of trait mindfulness tend to be happier and have better relationships due to their ability to regulate their emotions than those with lower levels of trait mindfulness.

To understand mindfulness' influences on stress, one study examined the role in which mindfulness (conceptualized both as a state and trait) might have helped Australian nurses cope with stress (Grover, Teo, Pick, & Roche, 2016). The researchers highlighted two important relationships in regards to the way mindfulness related to stress. First, mindfulness directly related to stress and perceptions of emotional demands because mindfulness helped to increase focus on the present moment and reduce attention-competing thoughts and stress.

Second, mindfulness may have influenced the way in which people related to job demands and used job resources to change the way they experienced stress. They based their argument on past findings that showed that mindfulness helped individuals experience the present moment by detaching themselves from ruminating thoughts,

including anxieties about the future and regrets about the past (Grover et al., 2016; Verplanken & Fisher, 2014). That is, mindfulness reduces stress through practicing non-judgment, which reduces ruminating thoughts, and aids in being present-focused and less focused on stress-inducing thoughts when faced with job demands, which reduces the perceptions of job demands. Therefore, while employees who have high levels of mindfulness may experience job demands and stress similarly to those who have lower levels of mindfulness, employees with high levels of mindfulness may not engage in automatic stress reaction to the job demands and stress the same way employees who have lower levels of mindfulness. Instead, those with higher levels of mindfulness are more aware of their reactions. Thus, they are more able to monitor and self-regulate their reactions to stressful events. For these reasons, the researchers believed the ability to monitor emotions (i.e., awareness of emotions) may have had the greatest impact on emotional demands. Next, the following section reviews the relationships found between trait mindfulness and burnout.

Relationships Between Trait Mindfulness and Burnout

Not many peer-reviewed studies have examined the relationship between trait mindfulness and burnout. Of the limited number of peer-reviewed studies on the relationship between trait mindfulness and burnout, evidence has shown to support that trait mindfulness is negatively related to burnout (Di Benedetto & Swadling, 2014; Townley, 2016) and stress (Grover et al., 2016; Weinstein, Brown, & Ryan, 2009). Additional evidence has shown to support that trait mindfulness is positively related to

cultivating positive relationships with people (Barnes et al., 2007) and well-being (Goodman & Schorling, 2012; Richards, Campenni, & Muse-Burke, 2010).

Creswell, Way, Eisenberger, and Lieberman (2007) conducted a study to understand the mechanisms behind mindfulness reducing mental and physical health symptoms by examining people's brain activity through functional magnetic resonance imagining (fMRI). They found people high in trait mindfulness had more prefrontal cortical activity, which is part of the limbic system and is responsible for analytical processing and decision-making, and less amygdala activity, which is also part of the limbic system and is responsible for controlling aggression (i.e., negative affect), while participants were tasked to identify emotions compared to people low in trait mindfulness. These findings imply that mindfulness helps reduce negative mental and physical health symptoms by strengthening the ability to identify feelings, which aids in emotion recognition, regulation, and detachment.

Overall, there are studies that support that mindfulness can help people reduce stress, exhaustion, burnout, critical and judgmental thinking while increasing understanding for oneself (i.e., less self-critical) as well as others. Additionally, mindfulness can help people be more aware of their thoughts, which helps improve self-regulation of thoughts, emotions, and behaviors. Finally, another important personal trait that has not been studied as a predictor of burnout is resilience.

Resilience and Its Benefits

In addition to mindfulness, resilience has been a popular strategy to cope with burnout. Fletcher and Sarkar (2013) defined psychological resilience (of which

"resilience" and "psychological resilience" will be used interchangeably in this paper) as "the role of mental/processes and behavior in promoting personal assets and protecting an individual from the potential negative effect of stressors" (p. 16), which means drawing on and/or building internal strength to create a buffer to protect oneself from the harmful effects of stress. Within organizational behavior research, Luthans (2002) also defined resiliency as "the positive psychological capacity to rebound, to 'bounce back' from adversity, uncertainty, conflict, failure or even positive change, progress and increased responsibility" (p. 702). This definition of resilience reflects the recovery and rebuilding from hardships aspect. Resilience is further described as the phenomenon in which individuals use setbacks as opportunities to motivate themselves and grow (Youssef & Luthans, 2007), which reflects a growth mindset and perspective. Moreover, resilience is considered a coping mechanism to both adverse (e.g., hardships, failures, and times of uncertainty) and beneficial events (e.g., promotion, increased job responsibilities, and relocating), helping individuals manage both distress and eustress (Luthans, 2002; Luthans, Norman, Avolio, & Avey, 2008). Overall, people with higher levels of resilience are able to recover from disruptions in functioning faster and manage stress levels better than people with lower levels of resilience.

As mentioned earlier, resilience is considered both as a personal trait and state. This study uses trait resilience as defined by Smith, Dalen, Wiggins, Tooley, Christopher, and Bernard (2008). They defined resilience as the tendency to spring back or recuperate from stress, which acknowledges the cognitive and behavioral tendencies that help individuals cope and overcome challenges as well as to protect individuals from the

impacts of trauma (Burns & Anstey, 2010; Hu et al., 2015). Based on the many studies examining resilience, researchers have found many benefits associated with resilience.

With today's constantly changing work environment, resilience has been an important and critical characteristic in employees at all levels of the organization because resilience is connected to helping individuals alleviate distress and burnout (Connor, 2006). People with low resilience show signs of higher neuroticism while facing challenges and inflexibility to changes and are more likely to resist new experiences (Bonanno, Papa, & O'Neill, 2001; Fredrickson, 2004). Although employees with low levels of resilience have a more difficult time adapting to change, high resilient employees are better able to cope with changes in the workplace and are generally more welcoming of changes due to their understanding of the usefulness of, and their ability to induce, positive emotions (Fredrickson, Tugade, Waugh, & Larkin, 2003; Shin et al., 2012). Positive emotions are thought to help employees with high levels of resilience view events optimistically and respond to change more constructively (Fredrickson et al., 2003; Shin et al., 2012).

Additionally, employees with high levels of resilience are more likely to have stronger awareness and acceptance of reality, and the abilities to be flexible, improvise, and adapt to change than those with lower levels of resilience (Coutu, 2002). This may be because individuals with high levels of resilience tend to react to adverse situations by recognizing and acknowledging the circumstances, and by taking the time, energy, and resources needed to return to baseline (Youssef & Luthans, 2007). Due to the benefits of high levels of resilience, it is important for organizations to emphasize on resilience in

their organizational cultures and help employees build their individual levels of resilience to reduce the experience of stress.

To understand the role of resilience in coping with workplace stress, Siu et al. (2009) conducted interviews and self-report surveys in a longitudinal study among Chinese healthcare workers. In the self-report surveys, they assessed resilience, quality of life, work-life balance, job satisfaction, injuries at work (i.e., cuts, infectious disease, scratches, sprains), and physical and psychological symptoms (i.e., insomnia, depression). They found resilience had a positive relationship with job satisfaction, work-life balance, and quality of life and a negative relationship with injuries at work and physical/psychological symptoms. This means that people who had higher levels of resilience were likely to have higher levels of job satisfaction, work-life balance, and overall quality of life and likely to have less injuries at work, physical/psychological symptoms, and stress. Therefore, resilience helps people cope with stress, which may help people cope with burnout (Gito, Ihara, & Ogata, 2013; Rees et al., 2016).

Relationships Between Trait Resilience and Burnout

With the increase in the prevalence of burnout, resilience has been receiving attention due to its promising potential to reduce the effects of burnout (Montero-Marin et al., 2015). There have been studies that support resilience could be another predictor of burnout (e.g., Harker et al., 2016; Montero-Marin et al., 2015; Gito et al., 2013; Rushton et al., 2015). However, not many studies have studied resilience as a predictor of burnout using the CBI.

Using the MBI to measure burnout, Rushton et al. (2015) found that nurses with high levels of resilience experienced less emotional exhaustion than nurses with low levels of resilience. The researchers examined 114 nurses in six high-intensity units from four hospitals to complete six survey tools involving burnout, moral distress, and resilience. Results showed that nurses who had high levels of resilience reported low levels of emotional exhaustion and high levels of personal accomplishment. Their levels of emotional exhaustion remained stable and their levels of personal accomplishment increased over time, possibly because their high level of resilience kept them focused on and driven to accomplish their goal and did not allow emotional exhaustion to take energy and determination away from achieving their goal. This is consistent with past research that found people with low resilience showed signs of higher neuroticism when facing challenges (Bonanno et al., 2001). Additionally, the results of this study also align with other studies reporting that resilience is a strong factor in reducing burnout (Connor, 2006; Grafton, Gillespie, & Henderson, 2010).

Though there is an abundant body of research concerning mindfulness, resilience, and burnout, there is not much research that studies mindfulness and resilience as predictors of burnout, and even less research examining mindfulness and resilience as predictors using the CBI. Furthermore, there is not much research that compares mindfulness and resilience as predictors of burnout. For these reasons, more studies need to explore the relationships between mindfulness, resilience, and burnout.

Purpose of the Current Study

The current study examines mindfulness and resilience as predictors of burnout to understand which construct seems to contribute more to the prediction of each domain of burnout (personal, work-related, and client-related) as outlined by Kristensen et al. (2005) as well overall burnout to understand the impact on all four domains of burnout. Past studies have examined other predictors of burnout, the relationship between mindfulness and burnout, and the relationship between resilience and burnout. But few studies have compared mindfulness' and resilience's strength in predicting burnout. Understanding the roles of resilience and mindfulness in predicting burnout would benefit organizations and leaders to create better working environments for their employees. If more organizations understand mindfulness' and resilience's roles in reducing burnout, then more organizations could be more informed about choosing and/or designing their burnout intervention programs to help their employees cope with and reduce the effects of burnout.

It is important to understand burnout from as many aspects as possible, including how mindfulness and resilience individually predicts burnout. Mindfulness has gained more attention as an effective method to reduce burnout (Charoensukmongkol, 2013; Di Benedetto & Swadling, 2014; Duarte & Pinto-Gouveia, 2016), but mindfulness has not been systematically compared to other predictors of burnout. Similarly, resilience is an asset that is useful to overcome the challenges employees face in demanding work (Gito et al., 2013; Kutluturkan, Sozeri, Uysal, & Bay, 2016; Rushton et al., 2015), but resilience also has not been systematically studied as a predictor of burnout. Thus, it is

important to examine the relationships among these three constructs to add to the research body and to provide more insights to organizational leaders and managers to create better working conditions and provide more resources for their employees. As mentioned earlier, the current study used burnout defined by Kristensen et al. (2005). Based on the previous findings, the following hypotheses and questions are tested.

Hypothesis 1a: Mindfulness and resilience will predict personal burnout.

Hypothesis 1b: Mindfulness and resilience will predict work-related burnout.

Hypothesis 1c: Mindfulness and resilience will predict client-related burnout.

Hypothesis 1d: Mindfulness and resilience will predict overall burnout.

Research question 1: Which predicts personal burnout better, mindfulness or resilience?

Research question 2: Which predicts work-related burnout better, mindfulness or resilience?

Research question 3: Which predicts client-related burnout better, mindfulness or resilience?

Research question 4: Which predicts overall burnout better, mindfulness or resilience?

Method

Participants

Data were collected through an online survey. Of the 176 individuals who responded to the survey, 37 individuals were eliminated from further analyses because they did not meet the criteria (i.e., being at least 18 years of age and employed at the time of data collection) and/or had a substantial amount of missing data (i.e., more than 5 items). Therefore, the final sample consisted of 139 individuals.

Table 1 displays the demographic information of the sample. The majority of the participants were young adults: 56.8% (n = 79) between 25 to 34 years of age, 12.9% (n = 18) between 35 and 44 years of age, and 8.6% (n = 12) between 18 and 24 years of age. The majority of the participants were female (64.7%, n = 90) and 35.3% (n = 49) were male. Most participants were working 40 hours or more per week (82.7%, n = 115) and reported being in a non-managerial role (72.7%, n = 101). More than one-third of the participants reported having worked at their current organization between one and three years (36.0%, n = 50). In terms of annual gross base salary, about half of the sample earned between $50,000 and $94,999 (46.1%, n = 64). With regards to marital status, nearly half of the sample were single (46.0%, n = 64), followed by 41.0% (n = 57) of the sample were married, and 12.9% (n = 18) of the sample were with their partner. Finally, a majority of the sample had no children (68.3%, n = 95) and 31.6% (n = 44) of the sample had at least one child.

Table 1

Descriptive Statistics for Participant Demographics

Demographic Variables	*n*	%
Age		
18-24	12	8.6
25-34	79	56.8
35-44	18	12.9
45-54	11	7.9
55-64	11	7.9
65 or older	8	5.8
Gender		
Female	90	64.7
Male	49	35.3
Race/ethnicity		
Asian/Pacific Islander	75	54.0
Black	3	2.2
Hispanic or Latino/a	14	10.0
Mixed	5	3.6
White/Caucasian	40	28.8
Employment status		
Part-time (less than 40 hours per week)	24	17.3
Full-time (40 hours or more per week)	115	82.7
Job level		
Non-managerial	101	72.7
Managerial	38	27.3
Tenure – time at current organization		
Less than 1 year	36	25.9
1 – 3 years	50	36.0
3 – 5 years	21	15.1
5 – 7 years	9	6.5
7 – 9 years	6	4.3
9+ years	17	12.2
Gross base salary		
< $24,999	15	10.8
$25,000 – $49,999	13	9.4
$50,000 – $74,999	34	24.5
$75,000 – $94,999	30	21.6
$95,000 – $119,999	17	12.2
$120,000 - $149,999	17	12.2
$150,000+	13	9.4
Marital status		
Single	64	46.0
Married	57	41.0
Partner	18	12.9
Parental status (including step-children)		
None	95	68.3
1-2 children	37	26.6
3+ children	7	5.0

Note. $n = 139$.

Procedure

Participants were recruited through a wide range of my professional and personal networks, including, but not limited to, Facebook®, e-mail, and LinkedIn®. A description of the study along with the link to the questionnaire were posted in the above-mentioned sites and sent via e-mail. Participants clicked on the link to the questionnaire and were presented with the consent form that stated the purpose of the study and the information about the risks and benefits of the study, and informed them of their rights. Participants who declined to participate in the survey clicked "I DISAGREE" on the consent form, and they were directed to the end of the survey. Participants who chose to participate in the survey clicked "I AGREE" on the consent form and were presented with the questionnaire that measured mindfulness, resilience, burnout, and demographic information. An unsigned consent form was deemed appropriate to use due to the anonymous nature of the study and the minimal risk involved. In order to proceed with the questionnaire, participants were required to be at least 18 years of age and employed at the time of data collection. Participants who did not meet the criteria were directed to the end of the survey. After the participants completed the survey, they were thanked for their participation in the study.

Measures

Mindfulness. Mindfulness was measured using the Mindful Attention Awareness Scale-Short (MAAS-Short; Höfling, Moosbrugger, Schermelleh-Engel, & Heidenreich, 2011), which is a modified version of the Mindful Attention Awareness Scale (MAAS; Brown & Ryan, 2003b). The MAAS measures trait mindfulness as one dimension—

specifically, the frequency of mindfulness over time (Brown & Ryan, 2003a)—and was rated as the most reliable and valid scale in a recent review of mindfulness measurement (Qu, Dasborough, & Todorova, 2015). The MAAS-Short includes 10 items comprised of five negatively worded items from the MAAS and five positively worded items mirroring the five negatively worded items. The MAAS-Short was found to have higher internal consistency reliability than the original MAAS (Höfling et al., 2011). Sample items from the scale included, "I find it difficult to stay focused on what's happening in the present" (reverse coded) and "I find it easy to stay focused on what's happening in the present." Participants indicated how frequently or infrequently they experienced each statement on a 6-point Likert scale ranging from 1 (*almost never*) to 6 (*almost always*). The Cronbach's alpha of the MAAS-Short for all 10 items was .70, indicating acceptable reliability. The removal of two items ("It seems I am 'running on automatic' with much awareness of what I'm doing," and "I find myself listening to someone with one ear, without doing something else at the same time") increased the reliability to .83. Thus, only eight items were used. Responses were averaged to create a composite score of mindfulness. Higher scores indicated higher levels of mindfulness.

Resilience. The six-item Brief Resilience Scale (BRS; Smith et al., 2008) was used to measure trait resilience. The BRS has been tested and was found to be reliable (Rodríguez-Rey, Alonso-Tapia, & Hernansaiz-Garrido, 2016; Smith et al., 2008). An example item was "I tend to bounce back quickly after hard times." Participants indicated the extent to which they agreed or disagreed with each statement on a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The Cronbach's

alpha of the BRS was .88, indicating high reliability. Responses to these six items were averaged to create a composite score of resilience. Higher scores indicated higher levels of resilience.

Burnout. The 19-item Copenhagen Burnout Inventory (CBI) (Kirstensen et al., 2005) was used to measure burnout. Two different 5-point response scales were used. One scale was used for intensity ranging from 1 (*to a very low degree*) to 5 (*to a very high degree*) and the other scale was used for frequency ranging from 1 (*never-almost never*) to 5 (*always*).

The CBI consists of three scales reflecting the different domains of burnout: personal burnout, work-related burnout, and client-related burnout. Personal burnout measured the degree to which participants generally felt fatigue or exhaustion with daily activities or, in other words, experienced generic burnout irrespective of work (e.g., burnout attributed to health complications or family obligations). Work-related burnout measured the degree to which participants felt fatigue or exhaustion related to work tasks. The difference between personal burnout and work-related burnout questions is that personal burnout questions are meant to assess everyday burnout and are not specific to any particular cause (work or client-related). A key differentiating factor is that personal burnout questions do not mention work within the question whereas work-related burnout questions do include the word "work" within the question (e.g., "Does your work frustrate you?" and "Do you feel worn out at the end of the working day?"). Client-related burnout measured the degree to which participants felt fatigue or exhaustion related to

their clients, which could include students, patients, residents, inmates, or whoever the person interfaces.

Personal burnout was measured with six items on a frequency scale. An example item for personal burnout included, "How often do you feel tired?" Cronbach's alpha was .86, indicating high reliability. Work-related burnout was measured with seven items where some items were on frequency scales and other items were on intensity scales. An example item for work-related burnout included, "Does your work frustrate you?" Cronbach's alpha was .77, indicating acceptable reliability. The removal of one item increased the reliability ("Do you have enough energy for family and friends during leisure time?") to .87, indicating high reliability. Therefore, only six items were used to measure work-related burnout. Client-related burnout was measured with six items. Items were measured either on a frequency or an intensity scale. An example item for client-related burnout included, "Do you sometimes wonder how long you will be able to continue working with clients?" Cronbach's alpha was .90, indicating high reliability.

For each burnout domain, a composite score was calculated by averaging the scores. The internal consistency reliability of the overall CBI was .92. Overall burnout score was computed by averaging all the scores. Higher scores indicated higher levels of burnout for each domain and overall burnout.

Demographic information. In addition to the above-mentioned variables, several demographic questions were asked. These included employment status, job level, years of employment at current organization, gross base salary, gender, age range, marital status, and parental status.

Results

Descriptive Statistics

Data were analyzed using SPSS (version 25). Means, standard deviations, Pearson correlations, and Cronbach's alphas for the measured variables are reported in Table 2. On average, participants reported that they were mindful somewhat frequently (M = 4.24, SD = .83), neutral in resilience (M = 3.34, SD = .84), and low in overall burnout (M = 2.59, SD = .68). For the domains of burnout, participants reported low levels of personal (M = 2.84, SD = .74), work-related (M = 2.69, SD = .85), and client-related (M = 2.25, SD = .83) burnout.

Table 2

Means, Standard Deviations, Pearson Correlations, and Cronbach's Alphas Among Mindfulness, Resilience, and Burnout

Variable	*M*	*SD*	1	2	3	4	5	6
1. Mindfulness	4.24	.83	(.83)					
2. Resilience	3.34	.84	.39 **	(.88)				
3. Personal Burnout	2.84	.74	-.52 **	-.34 **	(.86)			
4. Work-Related Burnout	2.69	.85	-.43 **	-.25 **	.70 **	(.87)		
5. Client-Related Burnout	2.25	.83	-.30 **	-.27 **	.35 **	.59 **	(.90)	
6. Overall Burnout	2.59	.68	-.50 **	-.34 **	.80 **	.92 **	.79 **	(.92)

Note. $n = 139$. Reliability coefficients (Cronbach's alpha) are in parentheses along the diagonal.
* $p < .05$ ** $p < .01$ *** $p < .001$

Overall, the participants' awareness was very present-centered (i.e., not having the tendency to ruminate over the past) and they were somewhat resilient. They did not experience personal, work-related, and client-related burnout, and therefore, overall burnout.

Pearson Correlations

Results of the Pearson correlations showed that mindfulness was significantly and negatively related to personal burnout (r = -.52, p < .01), work-related burnout (r = -.43, p < .01), client-related burnout (r = -.30, p < .01), and overall burnout (r = -.50, p < .01), indicating that individuals who were present-centered with non-judgmental attention and awareness were less likely to experience personal, work-related, and client-related, and overall exhaustion. Among the different domains of burnout, mindfulness was most strongly related to personal burnout.

Resilience was significantly and negatively related to personal burnout (r = -.34, p < .01), work-related burnout (r = -.25, p < .01), client-related burnout (r = -.27, p < .01), and overall burnout (r = -.34, p < .01), indicating that individuals who had the ability to recover from hardship and disappointment were not likely to experience personal, work-related, client-related, and overall exhaustion. Among the different domains of burnout, resilience was also most strongly related to personal burnout.

Mindfulness was significantly and positively related to resilience (r = .39, p < .01), indicating that individuals whose attention were present-centered and had non-judgmental attention were also more likely to experience resilience.

The three domains of burnout were significantly and positively related to each other, ranging from $r = .35$ to $r = .70$, indicating that if individuals experienced burnout in one life domain, then they were also likely to experience burnout in the other life domains.

Test of Hypotheses

All of the hypotheses and research questions were tested using a hierarchical multiple regression correlation (MRC) analysis. For the MRC analyses, two steps were used for each of the four domains of burnout (personal, work-related, client-related, and overall). Demographic variables such as parental status, job level, years of employment, gender, marital status, age, and income have been shown to be related to burnout (Cañadas-De la Fuente et. al, 2015; Kim, Ra, Park, & Kwon, 2017; Kulik, 2006; Maslach & Jackson, 1985). Therefore, they were entered in the first step as control variables, and mindfulness and resilience were entered in the second step. Results of the analyses are shown in Tables 3 through 6.

Hypothesis 1a stated that mindfulness and resilience would predict personal burnout. As displayed in Table 3, results from the first step of the hierarchical regression analysis showed that the demographic variables accounted for 10% of variance in personal burnout, $R^2 = .10$, $R^2_{adj} = .04$, $F(8, 130) = 1.80$, $p = .08$. This means that these demographic variables, overall, did not significantly contribute to the prediction of personal burnout. However, gender ($\beta = -.18$, $t = -2.13$, $p < .05$) uniquely predicted personal burnout such that women were more likely to experience personal burnout than men.

Table 3

Hierarchical Multiple Regression Analysis for Variables Predicting Personal Burnout

Predictor	Personal Burnout					
	r		ß		R^2	ΔR^2
Step 1: Demographic variables					.10	.10
Age	-.16		-.27			
Gender	-.22	*	-.18	*		
Employment status	.05		.13			
Job level	-.02		.04			
Tenure	-.05		.05			
Annual gross base salary	-.10		-.13			
Marital status	-.05		-.04			
Parental status	.00		.21			
Step 2:					.36 ***	.26 ***
Mindfulness	-.52	**	-.43	***		
Resilience	-.34	**	-.20	**		

Note. $n = 139$. * $p < .05$ ** $p < .01$ *** $p < .001$

In the second step of the analysis, mindfulness and resilience accounted for an additional 26% of the variance in personal burnout above and beyond the variance explained by the demographic variables, $\Delta R^2 = .26$, $F(2, 128) = 25.97$, $p < .001$. This means that mindfulness and resilience predicted participants' levels of personal burnout above and beyond the effect of the demographic variables. Therefore, Hypothesis 1a was supported.

Research question 1 asked, "Which predicts personal burnout better, mindfulness or resilience?" Also displayed in Table 3, results showed that mindfulness ($\beta = -.43$, $t = -5.25$, $p < .001$) and resilience ($\beta = -.20$, $t = -2.50$, $p < .05$) significantly predicted personal burnout. However, mindfulness was more predictive of personal burnout than resilience. Therefore, the answer to research question 1 is that mindfulness predicted personal burnout better than resilience.

Hypothesis 1b stated that mindfulness and resilience would predict work-related burnout. As displayed in Table 4, results from the first step of the hierarchical regression analysis showed that the demographic variables accounted for 8% of variance in work-related burnout, $R^2 = .08$, $R^2_{adj} = .02$, $F(8, 130) = 1.36$, $p = .22$. This means that these demographic variables, overall, did not significantly contribute to the prediction of work-related burnout. However, age ($\beta = -.28$, $t = -2.04$, $p < .05$) uniquely predicted work-related burnout such that younger individuals were more likely to experience work-related burnout than older individuals.

Table 4

Hierarchical Multiple Regression Analysis for Variables Predicting Work-Related Burnout

Predictor	Work-Related Burnout			
	r	ß	R^2	ΔR^2
Step 1: Demographic variables			.08	.08
Age	-.19 *	-.28 *		
Gender	-.12	-.10		
Employment status	.10	.13		
Job level	-.09	-.04		
Tenure	.02	.14		
Annual gross base salary	-.03	-.05		
Marital status	-.06	-.04		
Parental status	-.08	.13		
Step 2:			.24 ***	.16 ***
Mindfulness	-.43 **	-.39 ***		
Resilience	-.25 **	-.10		

Note. $n = 139$. * $p < .05$ ** $p < .01$ *** $p < .001$

In the second step of the analysis, mindfulness and resilience accounted for an additional 16% of the variance in work-related burnout above and beyond the variance explained by the demographic variables, $\Delta R^2 = .16$, $F(2, 128) = 13.97$, $p < .001$. However, only mindfulness uniquely contributed to the prediction of work-related burnout ($\beta = -.39$, $t = -4.33$, $p < .001$). This means that only mindfulness predicted participants' levels of work-related burnout above and beyond the effect of the demographic variables. Therefore, Hypothesis 1b was partially supported.

Research question 2 asked, "Which predicts work-related burnout better, mindfulness or resilience?" Also displayed in Table 4, results showed that only mindfulness predicted work-related burnout ($\beta = -.39$, $t = -4.33$, $p < .001$). Therefore, the answer to research question 2 is that mindfulness predicted work-related burnout better than resilience.

Hypothesis 1c stated that mindfulness and resilience would predict client-related burnout. As displayed in Table 5, results from the first step of the hierarchical regression analysis showed that the demographic variables accounted for 8% of variance in client-related burnout, $R^2 = .08$, $R^2_{adj} = .03$, $F(8, 130) = 1.51$, $p = .16$. This means that these demographic variables, overall, did not significantly contribute to the prediction of client-related burnout. However, employment status (i.e., working part-time vs. full-time; $\beta = .22$, $t = 2.22$, $p < .05$) uniquely predicted client-related burnout such that people who worked full-time were more likely to experience client-related burnout than those who worked part-time.

Table 5

Hierarchical Multiple Regression Analysis for Variables Predicting Client-Related Burnout

Predictor	Client-Related Burnout					
	r		ß		R^2	ΔR^2
Step 1: Demographic variables					.08	.08
Age	-.16		-.22			
Gender	.02		.03			
Employment status	.18	*	.22	*		
Job level	-.13		-.08			
Tenure	-.05		.05			
Annual gross base salary	-.02		-.09			
Marital status	.08		.11			
Parental status	-.07		.13			
					.17 **	.09 ***
Step 2:						
Mindfulness	-.30	**	-.18	*		
Resilience	-.27	**	-.20	*		

Note. $n = 139$. * $p < .05$ ** $p < .01$ *** $p < .001$

In the second step of the analysis, mindfulness and resilience accounted for an additional 9% of the variance in client-related burnout above and beyond the variance accounted for by the demographic variables, $\Delta R^2 = .09$, $F(2, 128) = 6.89$, $p < .01$. This means that mindfulness and resilience predicted participants' levels of client-related burnout above and beyond the effect of the demographic variables. Therefore, Hypothesis 1c was supported. Research question 3 asked, "Which predicts client-related burnout better, mindfulness or resilience?" Also displayed in Table 5, results showed that both mindfulness ($\beta = -.18$, $t = -2.14$, $p = .05$) and resilience ($\beta = -.20$, $t = -2.14$, $p < .05$) predicted client-related burnout. However, resilience slightly predicted client-related burnout better than mindfulness. Therefore, the answer to research question 3 is that resilience predicted client-related burnout somewhat better than mindfulness.

Hypothesis 1d stated that mindfulness and resilience would predict overall burnout. As displayed in Table 6, results from the first step of the hierarchical regression analysis showed that the demographic variables accounted for 9% of variance in overall burnout, $R^2 = .09$, $R^2_{adj} = .04$, $F(8, 130) = 1.69$, $p = .11$. This means that these demographic variables, overall, did not significantly contribute to the prediction of overall burnout. However, employment status ($\beta = .19$, $t = 1.99$, $p < .05$) and age ($\beta = -.31$, $t = -2.25$, $p < .05$) uniquely predicted overall burnout such that younger people and those working full-time experienced more overall burnout than older people and those working part-time, respectively.

Table 6

Hierarchical Multiple Regression Analysis for Variables Predicting Overall Burnout

Predictor	Overall Burnout			
	r	ß	R^2	ΔR^2
Step 1: Demographic variables			.09	.09
Age	-.20 *	-.31 *		
Gender	-.12	-.10		
Employment status	.14	.19 *		
Job level	-.10	-.04		
Tenure	-.03	.10		
Annual gross base salary	-.06	-.10		
Marital status	-.01	.01		
Parental status	-.07	.19		
Step 2:			.31 ***	.22 ***
Mindfulness	-.50 **	-.40 ***		
Resilience	-.34 **	-.20 *		

Note. $n = 139$. * $p < .05$ ** $p < .01$ *** $p < .001$

In the second step of the analysis, mindfulness and resilience accounted for an additional 22% of the variance in overall burnout above and beyond the variance explained by the demographic variables, $\Delta R^2 = .22$, $F(2, 128) = 21.06$, $p < .001$. This means that mindfulness and resilience predicted participants' levels of overall burnout above and beyond the effect of the demographic variables. Therefore, Hypothesis 1d was supported.

Research question 4 asked, "Which predicts overall burnout better, mindfulness or resilience?" Also displayed in Table 6, results showed that both mindfulness ($\beta = -.40$, $t = -4.67$, $p < .001$) and resilience ($\beta = -.20$, $t = -2.34$, $p < .05$) significantly predicted overall burnout, but mindfulness was more predictive of overall burnout than resilience. Therefore, the answer to research question 4 is that mindfulness predicted overall burnout better than resilience.

In sum, both mindfulness and resilience were significant predictors of all domains of burnout. An exception was that resilience did not predict work-related burnout. Overall, mindfulness seemed to be a stronger predictor of all domains of burnout than resilience (with the exception of client-related burnout).

Discussion

Organizations continue to struggle to reduce burnout among their employees (Adriaenssens et al., 2015; Morse et al., 2012). To combat the consequences of burnout, mindfulness and resilience have gained support to reduce and cope with burnout. Mindfulness has been gaining popularity because of its association with increased attentional, behavioral, cognitive, emotional, and physiological benefits (Good et al., 2016) as well as overall well-being (Goodman & Schorling, 2012). Resilience has also been gaining popularity because of its associations with decreased anxiety, depression, and stress (Conner & Davidson, 2003).

Although the relationship between mindfulness and burnout (Charoensukmongkol, 2013; Di Benedetto & Swadling, 2014; Goodman & Schorling, 2012; Taylor & Millear, 2016) as well as the relationship between resilience and burnout (Gito et al., 2013; Jackson et al., 2007; Kutluturkan et al., 2016; Olson et al., 2015; Rushton et al., 2015) have been well-established, researchers have yet to examine and compare the degree to which resilience and mindfulness predict burnout. Furthermore, few studies have examined the relationship of burnout to trait mindfulness and trait resilience. Therefore, the current study was conducted to better understand how trait mindfulness and trait resilience predicted the three domains of burnout.

Summary of Findings

Hypothesis 1a stated that mindfulness and resilience would predict personal (i.e., generic) burnout. Personal burnout is the degree of exhaustion individuals experience that is caused by factors related outside of work (e.g., family, financial, or health

problems). Results supported the hypothesis, indicating that both mindfulness and resilience predicted personal burnout. No past research has examined mindfulness and resilience using the CBI. However, in a comparable study, Atkinson et al. (2017) examined burnout, depression, and self-compassion in mental health staff in Veterans Affairs clinics using the CBI. Self-compassion was defined as extending kindness to oneself, understanding that every person shares the experience of suffering, mindfulness, and non-judgment toward shortcomings. They found that self-compassion was negatively related to personal burnout and depression. Self-compassion is somewhat similar to mindfulness because it encompasses mindfulness in its definition. Thus, the results of the current study with respect to mindfulness are consistent with past research.

Research question 1 asked, which predicts personal burnout better, mindfulness or resilience? Results showed that mindfulness seemed to predict personal burnout better than resilience. A possible explanation for why mindfulness may have predicted personal burnout better than resilience is that mindfulness relaxes the body and calms the mind by focusing on the present-moment, thereby increasing awareness, which allows non-judgmental and non-ruminating space in thoughts. Non-judgment and non-rumination, in turn, possibly decrease emotional exhaustion and physical fatigue, which comprise the cause of personal burnout. No past research has examined mindfulness and resilience together in predicting personal burnout. Therefore, this study adds to the literature by finding that mindfulness predicted personal burnout more than resilience.

Hypothesis 1b stated that mindfulness and resilience would predict work-related burnout. Work-related burnout is the degree of exhaustion individuals experience that is

caused by factors related to work tasks. Results partially supported the hypothesis, indicating that only mindfulness predicted participant levels of work-related burnout. As mention above, Atkinson et al. (2017), self-compassion was negatively related to work-related burnout. Therefore, results were consistent with past research.

Research question 2 asked, which predicts work-related burnout better, mindfulness or resilience? Results showed that mindfulness seemed to predict work-related burnout better than resilience. A possible explanation for why mindfulness may have predicted work-related burnout better than resilience is similar to the possible reason mindfulness predicted personal burnout, which is that mindfulness encourages non-judgmental and non-ruminating thoughts and focus on the present-moment instead of focusing on disappointments and frustrations relating to work. No past research has examined mindfulness and resilience together in predicting work-related burnout. Therefore, this study adds to the literature by finding that mindfulness predicted work-related burnout more than resilience.

Hypothesis 1c stated that mindfulness and resilience would predict client-related burnout. Client-related burnout is the degree of exhaustion individuals experience that is caused by factors related to clients (including patients, customers, and students). Results supported the hypothesis, indicating that both mindfulness and resilience predicted client-related burnout. In the single comparable study by Atkinson et al. (2017), self-compassion was negatively related to client-related burnout. These results were consistent with past research.

Research question 3 asked, which predicts client-related burnout better, mindfulness or resilience? Results showed that resilience seemed to predict client-related burnout moderately better than mindfulness. A possible explanation for why resilience may have predicted client-related burnout better than mindfulness is that resilience is required to persevere to meet client demands and satisfaction. Clients are often the cause of stress, setting difficult deadlines and creating challenges at work. Therefore, resilience helps people recover from disruptions, manage stress levels, sustain the momentum to overcome challenges, and prevent people from giving up. No past research has examined mindfulness and resilience together in predicting client-related burnout. Therefore, this study adds to the literature by finding that resilience predicted client-related burnout more than mindfulness.

Hypothesis 1d stated that mindfulness and resilience would predict overall burnout. Results supported the hypothesis, indicating that both mindfulness and resilience predicted overall burnout. In the single comparable study by Atkinson et al. (2017), self-compassion was negatively related to total (or overall) burnout. Therefore, these results were consistent with past research.

Research question 4 asked, which predicts overall burnout better, mindfulness or resilience? Results showed that mindfulness seemed to predict overall burnout better than resilience.

Overall, these results indicated that those with high mindfulness and resilience were more likely to have low burnout (i.e., personal, work-related, and client-related) and that mindfulness was a stronger predictor of burnout than resilience.

Theoretical Implications

Consistent with past research (Di Benedetto & Swadling, 2014; Montero-Marin et al., 2015; Rushton et al., 2015; Taylor & Millear, 2016), the results of the current study showed that mindfulness and resilience were strongly and negatively related to burnout. These results add to the literature by emphasizing that mindfulness and resilience are important predictors of burnout. Additionally, the current study contributes to the research on burnout by examining whether either mindfulness or resilience predicts burnout better across the different life domains as defined by Kristensen et al. (2005).

The current study is the first to examine trait mindfulness and trait resilience as predictors of burnout using the CBI and the first to compare the predictability of mindfulness and resilience on burnout in different life domains, including overall burnout. The results suggested that mindfulness seemed to be a stronger predictor of personal, work-related, and overall burnout, while resilience was a slightly stronger predictor of client-related burnout. Mindfulness might be a stronger predictor of most of burnout in various life domains because mindfulness strengthens self-regulation skills and focus on the present-moment, which reduces rumination and self-criticism. Rumination and self-criticism add to feelings of distress and exhaustion. Therefore, these findings add to the literature by suggesting that mindfulness has more influence on general (i.e., burnout not related to work), work-related, and overall burnout than resilience.

Resilience, however, has more influence on client-related burnout than mindfulness. This may be so because clients are more likely to prompt setbacks and initiate conflict

than work tasks and events in daily life, particularly because many hours are often dedicated to interacting with clients or people at work in general, which would increase the frequency of experiencing conflicts and setbacks. Additionally, resilient employees are generally better able to cope with and are more welcoming of changes in the workplace because of their ability to induce positive emotions (Fredrickson et al., 2003; Shin et al., 2012). Positive emotions are thought to help employees view events optimistically and respond to change more constructively (Fredrickson et al., 2003; Shin et al., 2012). Similar to positive emotions, positive affect has been found to be negatively related to burnout (Thoresen, Kaplan, Barsky, Warren, & de Chermont, 2003), which may be the reason resilience was more related to client-related burnout than mindfulness.

Practical Implications

The present study examined trait mindfulness and trait resilience as predictors of burnout. Thus, one practical implication of the current study is to hire those who have high trait mindfulness and resilience. However, this may not be practical to hire only employees with high trait mindfulness and resilience in order to reduce burnout among employees.

Trait mindfulness strengthens with repetition of practice (Farb et al., 2007; Siegel, 2009). Therefore, people with low trait mindfulness can increase their trait mindfulness by experiencing state mindfulness on a frequent basis with practice. Similarly, trait resilience can be strengthened (Jackson et al., 2007; Robertson et al., 2015; Tugade, & Fredrickson, 2004). Therefore, if organizations train their employees to increase state mindfulness and state resilience, the effects similar to the ones found in the current study

might be possible. Therefore, given that both mindfulness and resilience were found to predict burnout in various life domains in the present study, organizations might offer resources and opportunities to allow people to become more mindful and resilient.

Trainings to increase mindfulness and resilience and decrease burnout among employees would save organizations money due to reduced medical problems, insurance claims, absenteeism, and loss of productivity. At the same time, these trainings could add value to organizations by increasing team cohesion due to higher emotional intelligence (i.e., the ability to understand, manage, and integrate emotions) (Zeidner et al., 2004) and regulation, compassion, work performance and productivity, job satisfaction, and distress tolerance. Therefore, it is practical for organizations to offer mindfulness training to increase levels of mindfulness and reduce burnout in their employees.

As mentioned earlier, trait resilience can be strengthened (Jackson et al., 2007; Robertson et al., 2015; Tugade & Fredrickson, 2004). Therefore, trait-like resilience can be learned through training interventions (Youssef & Luthans, 2007) with approaches based on increased assets (e.g., resources such as social support) and protective processes (e.g., self-regulation skills such as emotional awareness) as well as reduced exposure to or impact of risks (e.g., negative outcomes such as family crises) and other stressors (Masten, 2001). Other strategies to increase resilience include cultivating supportive relationships, positive states, and spirituality, as well as being more reflective and emotionally insightful (Jackson et al., 2007). Training employees with the purpose of increasing levels of resilience has been connected to positive mental health and subjective

well-being outcomes (e.g., reduced stress, depression, and negative affect) (Arnetz, Nevedal, Lumley, Backman, & Lublin, 2009).

Strengths, Limitations, and Future Directions

One strength of the present study is that it compared the extent to which mindfulness and resilience predicted burnout. Previous research had focused on the influence of each on burnout in isolation and had not compared the two constructs in one study. With findings from this current study, organizations can develop programs to help their employees cope with burnout, overcome challenges, and be more productive.

The second strength of the current study is that it examined burnout in three life domains as well as overall burnout. The results showed the contribution of each construct somewhat differed depending on the life domain. Therefore, isolating the domains of burnout as well as overall burnout was useful to understand the unique contribution that mindfulness and resilience had on the prediction of burnout as the results showed the contribution of each construct somewhat differed depending on the life domain.

Despite the strengths of the current study, the study is not without limitations. First, a cross-sectional and correlational design has limitations on claiming causality of mindfulness and resilience to prevent burnout. Therefore, although both mindfulness and resilience were found to predict burnout in various life domains, it cannot be stated with confidence that mindfulness and resilience caused reduced burnout.

Second, the study involved 139 participants, which seems to be a small sample size and is less likely to reflect the larger population compared to a large sample size.

Relatedly, the study involved participants who were predominately younger professionals who were 34 years of age or younger, in non-managerial roles, at their current organization for three years or less, and had no children. This means the sample distribution was positively skewed and did not provide a strong representation of the larger population. Therefore, the external validity (i.e., the extent the results can be generalized to the overall workforce) is limited. Future research could address these issues by using a longitudinal design and recruiting people of diverse demographics—including older people, parents, men, and people in leadership positions and who have been in their current organizations for three years or more. With longitudinal designs, researchers are able to understand cause-effect relations and relationships between mindfulness and burnout as well as resilience and burnout better due to establishing baselines, factoring individual differences and environmental factors, and seeing changes over time (Britt, Shen, Sinclair, Grossman, & Klieger, 2016; Mäkikangas, & Kinnunen, 2003). However, weaknesses of a longitudinal design include expense and time consumption.

Other demographics could include, or solely focus on, groups that are under high stress such as graduating high school or university seniors; grandparents who are the guardians for their grandchildren, working elderly who are unable to retire; corporate leaders, teachers working in school districts that are under served, nurses; and new parents, divorcees, and widows (Pirson, Langer, & Zilcha, 2018) to compare mindfulness and resilience as predictors of burnout. The research on these proposed demographic groups can be done longitudinally as well.

Another limitation was the use of self-report online survey. The use of self-report surveys may include bias from participants stemming from false conceptions of themselves (e.g., believing they are kinder people than they actually are), responding to what is socially accepted (e.g., positive illusory bias or feeling the need to respond in such a way that aligns to how they want to publicly present themselves and, therefore, reporting false responses), or due to other factors that may influence their response (e.g., environmental distraction or time limitations while answering survey questions) (Maccoby & Maccoby, 1954, as cited in Fisher, 1993; Podsakoff & Organ, 1986). The online nature of the survey also limits responses to people who have access to the Internet. Thus, the sample may not have included those who do not have access to the Internet and most likely from lower income backgrounds. Future research could address these issues by offering pen and paper surveys and emphasizing responses to each question should be solely based on their experience rather than what they think their experience or responses should be.

Conclusion

In conclusion, the current study found that mindfulness and resilience, together, significantly predicted burnout in three life domains as well as overall burnout. Though only mindfulness seemed to be a stronger predictor than resilience for personal, work-related, and overall burnout, and only resilience was a somewhat stronger predictor than mindfulness for client-related burnout and not significantly related to work-related burnout. This study contributes to the existing literature by finding mindfulness was a

stronger predictor of burnout. Findings suggest that mindfulness and resilience could be used as part of an effective intervention program to reduce burnout among employees.

Employees are required to keep pace in a constantly and rapidly changing global economy (Siu et al., 2009), which requires longer hours and leads to higher likelihood of work-family conflict, which then creates stress for employees and can tremendously reduce work productivity and organizational commitment (Perrone, Ægisdóttir, Webb, & Blalock, 2006). Given the benefits of mindfulness are reduced emotional reactivity, stress, and rumination and increased focus and cognitive flexibility, mindfulness can be a useful tool to help employees overcome and cope with stress in the workplace and the challenges that happen every day. Also, with repetition and practice, states of mindfulness and resilience can become traits of mindfulness and resilience, respectively. Therefore, organizational leaders can incorporate mindfulness and resilience in their work cultures and programs to help increase their employees' levels of productivity, well-being, emotional intelligence, and recovery from failure and setbacks as well as to reduce burnout and stress so that they can be flourishing inside and outside the organization.

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Appendix A

Demographic Questionnaire Items

1. Are you currently employed?
   - Yes.
   - No.

2. What is your employment status?
   - Part-time (less than 40 hours per week)
   - Full-time (40 hours or more per week)

3. What is your job level?
   - Non-managerial (don't manage employees within the company)
   - Managerial (do manage employees within the company)
   - Individual contractor
   - Other: Please explain.

4. How long you have been working at your current organization?
   - Less than 1 year
   - 1 – 3 years
   - 3 – 5 years
   - 5 – 7 years
   - 7 – 9 years
   - 9+ years

5. Please indicate the range that includes your gross base salary:
   - < $24,999
   - $25,000 – $49,999
   - $50,000 – $74,999
   - $75,000 – $94,999
   - $95,000 – $119,999
   - $120,000 - $149,999
   - $150,000+

6. Please indicate the gender do you identify with:
   - Female
   - Male
   - Other

7. What race/ethnicity do you identify with? (Select all that apply.)
    - Asian or Pacific Islander
    - Black
    - Hispanic or Latino/a
    - Native American or Alaska Native
    - White/Caucasian

8. What is your age range?
    - 18-24
    - 25-34
    - 35-44
    - 45-54
    - 55-64
    - 65 or older

9. What is your marital status?
    - Single
    - Married
    - Not married, but with life partner

10. What is your parental status (including step-children)?
    - No children
    - 1-2 children
    - 3 or more children

Appendix B

Scale Items

Mindfulness Attention Awareness (Höfling, Moosbrugger, Schermelleh-Engel, & Heidenreich, 2011)

1. I find it difficult to stay focused on what's happening in the present.*
   - Almost never
   - Very infrequently
   - Somewhat infrequently
   - Somewhat frequently
   - Very frequently
   - Almost always

2. It seems I am "running on automatic" without much awareness of what I'm doing.*
   - Almost never
   - Very infrequently
   - Somewhat infrequently
   - Somewhat frequently
   - Very frequently
   - Almost always

3. I do jobs or tasks automatically, without being aware of what I'm doing.*
   - Almost never
   - Very infrequently
   - Somewhat infrequently
   - Somewhat frequently
   - Very frequently
   - Almost always

4. I find myself listening to someone with one ear, doing something else at the same time.*
   - Almost never
   - Very infrequently
   - Somewhat infrequently
   - Somewhat frequently
   - Very frequently
   - Almost always

5. I find myself doing things without paying attention.*
   - Almost never
   - Very infrequently
   - Somewhat infrequently
   - Somewhat frequently
   - Very frequently
   - Almost always

6. I find it easy to stay focused on what's happening in the present.
   - Almost never
   - Very infrequently
   - Somewhat infrequently
   - Somewhat frequently
   - Very frequently
   - Almost always

7. It seems I am "running on automatic" with much awareness of what I'm doing.
   - Almost never
   - Very infrequently
   - Somewhat infrequently
   - Somewhat frequently
   - Very frequently
   - Almost always

8. I do jobs or tasks being aware of what I'm doing.
   - Almost never
   - Very infrequently
   - Somewhat infrequently
   - Somewhat frequently
   - Very frequently
   - Almost always

9. I find myself listening to someone with one ear, without doing something else at the same time.
   - Almost never
   - Very infrequently
   - Somewhat infrequently
   - Somewhat frequently
   - Very frequently
   - Almost always

10. I find myself doing things with paying attention.
    - Almost never
    - Very infrequently
    - Somewhat infrequently
    - Somewhat frequently
    - Very frequently
    - Almost always

Resilience (Smith, Dalen, Wiggins, Tooley, Christopher, & Bernard, 2008)

1. I tend to bounce back quickly after hard times.
    - Strongly disagree
    - Disagree
    - Neutral
    - Agree
    - Strongly agree

2. I have a hard time making it through stressful events.*
    - Strongly disagree
    - Disagree
    - Neutral
    - Agree
    - Strongly agree

3. It does not take me long to recover from a stressful event.
    - Strongly disagree
    - Disagree
    - Neutral
    - Agree
    - Strongly agree

4. It is hard for me to snap back when something bad happens.*
    - Strongly disagree
    - Disagree
    - Neutral
    - Agree
    - Strongly agree

5. I usually come through difficult times with little trouble.
    - Strongly disagree
    - Disagree
    - Neutral
    - Agree
    - Strongly agree

6. I tend to take a long time to get over set-backs in my life.*
    - Strongly disagree
    - Disagree
    - Neutral
    - Agree
    - Strongly agree

Burnout (Kirstensen, Borritz, Valladsen & Christensen, 2005)

Personal burnout:

1. How often do you feel tired?
    - Never-Almost never
    - Seldom
    - Sometimes
    - Often
    - Always

2. How often are you physically exhausted?
    - Never-Almost never
    - Seldom
    - Sometimes
    - Often
    - Always

3. How often are you emotionally exhausted?
    - Never-Almost never
    - Seldom
    - Sometimes
    - Often
    - Always

4. How often do you think: “I can’t take it anymore”?
    - Never-Almost never
    - Seldom
    - Sometimes
    - Often
    - Always

5. How often do you feel worn out?
    - Never-Almost never
    - Seldom
    - Sometimes
    - Often
    - Always

6. How often do you feel weak and susceptible to illness?
    - Never-Almost never
    - Seldom
    - Sometimes
    - Often
    - Always

Work-related burnout:

7. Do you feel worn out at the end of the working day?
    - Never-Almost never
    - Seldom
    - Sometimes
    - Often
    - Always

8. Are you exhausted in the morning at the thought of another day at work?
    - Never-Almost never
    - Seldom
    - Sometimes
    - Often
    - Always

9. Do you feel that every working hour is tiring for you?
    - Never-Almost never
    - Seldom
    - Sometimes
    - Often
    - Always

10. Do you have enough energy for family and friends during leisure time?
    - Never-Almost never
    - Seldom
    - Sometimes
    - Often
    - Always

11. Is your work emotionally exhausting?
    - To a very low degree
    - To a low degree
    - Somewhat
    - To a high degree
    - To a very high degree

12. Does your work frustrate you?
    - To a very low degree
    - To a low degree
    - Somewhat
    - To a high degree
    - To a very high degree

13. Do you feel burnt out because of your work?
    - To a very low degree
    - To a low degree
    - Somewhat
    - To a high degree
    - To a very high degree

Client-related burnout:

14. Do you find it hard to work with clients?
    - To a very low degree
    - To a low degree
    - Somewhat
    - To a high degree
    - To a very high degree

15. Does it drain your energy to work with clients?
    - To a very low degree
    - To a low degree
    - Somewhat
    - To a high degree
    - To a very high degree

16. Do you find it frustrating to work with clients?
    - To a very low degree
    - To a low degree
    - Somewhat
    - To a high degree
    - To a very high degree

17. Do you feel that you give more than you get back when you work with clients?
    - To a very low degree
    - To a low degree
    - Somewhat
    - To a high degree
    - To a very high degree

18. Are you tired of working with clients?
    - Never-Almost never
    - Seldom
    - Sometimes
    - Often
    - Always

19. Do you sometimes wonder how long you will be able to continue working with clients?
    - Never-Almost never
    - Seldom
    - Sometimes
    - Often
    - Always

* Indicates survey question was reverse scored.